



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/667,301 09/25/00 WATANABE H Q60969

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EXAMINER

HUNTER, A

ART UNIT

PAPER NUMBER

3711

DATE MAILED: 10/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/667,301

Applicant(s)

WATANABE ET AL.

Examiner

Alvin A. Hunter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 4-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higuchi et al. (USPN 5830085) in view of OFFICIAL NOTICE.

Higuchi et al. discloses a golf ball having the ranges overlapping that of the applicant's, such as core diameter, core center and surface hardnesses, core compression, intermediate layer thickness and hardness, cover thickness and hardness, core material, intermediate layer material, and cover material. Obviously the mantle layer disclosed by Higuchi et al. can meet the mantle/core compression as that disclosed by the applicant. Though Higuchi et al. does not show the mantle layer having a Shore D hardness of 15 to 30, it does disclose that the core's surface hardness is up to 85 JIS-C (≥ 56.6 Shore D) and the mantle layer having a JIS-C hardness of up to 85 (≥ 56.6 Shore D). If the mantle layer hardness exceeds 10 or more than the surface hardness of the core, then the restitution would be affected. The reference does not give a true lower limit on the hardnesses of the core and intermediate layer and, therefore, is seen as obvious.

OFFICIAL NOTICE is taken that deformation is directly related to the modulus of elasticity ($E = \text{load/amount of deformation}$). The modulus of elasticity affects the ball's

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resiliency, restitution, and hitting feel. Therefore, having mantle deformation amount similar to that of the core would act as a core in whole.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Higuichi et al. with a mantle to core ratio of 0.98 as suggested by the OFFICIAL NOTICE in order to optimize the resiliency, restitution, and hitting feel of the golf ball.

Response to Arguments

Applicant's arguments with respect to claims 1-7 have been considered but are moot in view of the new ground(s) of rejection.

In the response filed August 21, 2001, the applicant argued that Higuchi et al. does not suggest of teach good hitting feel with various clubs, the same mantle/core compression ratio, and that Shama et al. does not teach or suggest the same mantle/core compression or mantle material.

In response to the applicant, the examiner agrees with the argument made against the Shama et al. reference but disagrees with the argument made against Higuichi et al. Higuchi et al. discloses vital information that would suggest one having ordinary skill in the art to formulate the invention of that of the applicant. Higuchi et al. discloses the effect of making the core to hard and the effect of making the intermediate layer to a degree harder than the core, in which the hitting feel and the restitution is effected. Furthermore, the applicant appeared to draw similarities using Comparative Examples disclosed in the present application. The examiner is not convinced by the comparative examples due to the amount of ball hit. The examiner believes that there


has to be an error percentage due to the amount of ball hit. The examiner does not believe that every ball hit fell into the averages disclosed by the applicant. In regards to the information disclosure statement, the first foreign patent document was not considered because a) the application was not available for the examiner due to it being granted an allowance and b) the applicant did not provide a translation of the document. The second foreign document was not considered because it was not accompanied with an abstract. The examiner does not have proof that it is indeed the same documents as the U.S. Patent and the U.S. Serial No. stated in the IDS. In view of the response submitted by the applicant, the Shama et al. reference has been removed from the rejection and the above office action has been furnished.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is 703-306-5693. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeanette Chapman, can be reached on (703) 308-1310. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1148.


JEANETTE CHAPMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700